

## **REMARKS**

Claims 1-14 are pending in the application, of which claims 1-14 presently stand rejected. New claims 15-18 have been added and claims 1 and 8 have been amended to more clearly describe Applicants' invention. Certain paragraphs of the specification have also been amended to correct typographical informalities. No new matter has been added. In view of the amendments above and arguments set forth below, reconsideration of rejected claims 1-14 and consideration of new claims 15-18, and allowance of the same, is respectfully requested.

### **Drawings**

1. Replacement sheets are provided for Figures 1 and 2 with the legend "Prior Art" added.

### **Specification**

2. The specification has been amended to correct certain typographical informalities, including the specific informality objected to by the Examiner.

### **Claim Rejections – 35 U.S.C. § 112, First Paragraph**

3. The Examiner has rejected claims 5 and 12 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner argues that claims 5 and 12 contain subject matter not described in the specification in such a way as to convey possession of the claimed invention. Applicants traverse this rejection.

As to the rejection of **claims 5 and 12**:

The Examiner argues that the recitation in claims 5 and 12 directed to "classifying the bit strings configuring the read data" appears to be an "operation carr[ied] out on the read data from a first storage medium, rather than the said bit strings contained within a control register." Applicants submit, however, that the recitation of the DMA medium classifying "the bit strings configuring the read data," that is, the bit strings stored in the control register, is enabled by

applicants' disclosure directed to setting the bits of the control register to effect an Endian-type conversion and thus shows possession. In particular, bits 2, 3, and 8 of the control register play a role in this regard. The more significant bit string and less significant bit string refers to the relative position of the data undergoing the Endian conversion. The subject matter of claims 5 and 12 is disclosed in the specification in Figure 3, Table 1 on page 8, and the paragraph beginning at page 10, line 26 and carrying over to page 11, line 8. Applicants submit that this disclosure is more than sufficient to enable and show possession of claims 5 and 12 within the meaning of 35 U.S.C. § 112, first paragraph, and requests that the Examiner withdraw this rejection.

### **Claim Rejections – 35 U.S.C. § 103(a)**

4. The Examiner has rejected claims 1-4 and 8-11 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,313,607 to *Tokumaru* in view of U.S. Patent No. 4,604,722 to *Staplin et al.* Applicants traverse this rejection.

As to the rejection of **claims 1 and 8**:

The Examiner argues that the '607 patent to *Tokumaru* "teaches a method for reading and storing data by means of a direct memory access (DMA) medium" as claimed by Applicants but does not teach "sequentially storing bit strings configuring the read data in a register," a limitation which the Examiner argues is taught by the '722 patent to *Staplin*. Applicants traverse this rejection.

The '722 patent to *Staplin* uses a register, identified as the F-register, to contain a software instruction to implement software shift instructions of the CPU. *Staplin*: col. 9, ll. 17-21. It is important to recognize that the F-register falls within the control area of the CPU. See *Staplin*: col. 5, ll. 36-40 and Fig. 3, reference numerals 36 and 51. The data shifting disclosed by *Staplin* is an operation of the CPU and not the DMA, which is claimed by Applicants. Because the data shifting taught by *Staplin* is an operation of the CPU and not the DMA, the '722 patent to *Staplin* teaches away from Applicants' claimed invention and thus cannot serve as a secondary reference for the purpose of teaching "sequentially storing bit strings configuring the read data in a register," as claimed by Applicants.

Further, the '607 patent to *Tokumaru* teaches manipulating bytes of data to accommodate misaligned memory storage via application of a selecting signal and a shifting signal. *See Tokumaru*: col. 3, ll. 40-66. These signals originate externally from the DMA controller of *Tokumaru*. *See Tokumaru*: Fig. 4. Thus, neither *Tokumaru* nor *Staplin* teach or disclose a DMA controller containing the control to implement data shifting.

Because *Tokumaru* and *Staplin*, either alone or in combination, fail to teach or suggest one or more limitations recited by Applicants' claims 1 and 8, for at least this reason, Applicants' claims 1 and 8 patentably distinguish from *Tokumaru* and *Staplin* and are allowable over the references.

As to the rejection of **claims 2-4 and 9-11**:

Claims 2-4 depend from independent claim 1, and claims 9-11 depend from independent claim 8. Independent claims 1 and 8 have been amended to more clearly describe Applicants' invention and, as discussed above, are in a position for allowance. Accordingly, claims 2-4 and 9-11 are also allowable since they each depend from an allowable base claim. Neither *Tokumaru* nor *Staplin*, either alone or in combination, teach or suggest the claimed invention herein. Therefore, claims 2-4 and 9-11 are allowable over *Tokumaru* in view of *Staplin*.

5. The Examiner has rejected claims 5-7 and 12-14 under 35 U.S.C. § 103(a) as unpatentable over *Tokumaru* in view of *Staplin*, and in further view of U.S. Patent No. 5,781,763 to *Beukema et al.* Applicants traverse this rejection.

Claims 5-7 depend from independent claim 1, and claims 12-14 depend from independent claim 8. Independent claims 1 and 8 have been amended to more clearly describe Applicants' invention and, as discussed above, are in a position for allowance. Accordingly, claims 5-7 and 12-14 are also allowable since they each depend from an allowable base claim. Neither *Tokumaru* nor *Staplin* nor *Beukema*, either alone or in combination, teach or suggest the claimed invention herein. Therefore, claims 5-7 and 12-14 are allowable over *Tokumaru* in view of *Staplin*, and in further view of *Beukema*.

***Conclusion***

In view of the amendments and arguments set forth above, Applicants submit that the present application is in condition for allowance and would appreciate early notification of the same.

***Invitation for a telephone interview***

The Examiner is invited to call the undersigned at (202) 659-9076 if further issues remain with allowance of this case.

***Deposit Account Authorization***

Although no fee is believed due by submission of this paper, authorization is hereby made to charge any fees due or outstanding, or credit any overpayment, to Deposit Account No. **18-2220** (Order No. 45927).

Respectfully Submitted,



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